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ABSTRACT

Individuals tend to hold on to initial impressions even after the data upon which they have formed the impression have been discredited. To partially replicate and extend a previous study (Ross et al., 1977) on belief perserverance, in which subjects were told they were to act as clinical psychologists attempting to understand and predict patients' behavior based on background information, college students attempted to make clinical judgments about possible patient behavior based on case history material. Two control groups, one without explanation (N=20) and one with explanation (N=20) were included. Subjects in the experimental conditions provided one explanation (N=20) or two explanations (N=38) about why the patient might or might not have committed suicide. All subjects rated the likelihood of five events (committed suicide, participated in a dangerous medical experiment, became an alcoholic, contributed money to the Peace Corps, volunteered on a political campaign) subsequently occurring in the patient's life. Analysis of the results provided clear support for the hypothesis that once having explained an event, subjects' subjective likelihood predictions for that event actually occurring increase. However, no increase was obtained among subjects in the dual explanation task. It is possible that subjects recognized the ambiguities in the data when faced with a second and contradictory explanation task. (MCF)

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Belief Perseverance: A Replication and Extension of Social Judgment Findings

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Belief Perseverance: A Replication and Extension of Social Judgment Findings

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Abstract

Subjects were required to explain an event in the later life of a patient after reading a case history, and to estimate the likelihood of occurrence of a series of events, including the event explained, and their confidence in the likelihood estimations. A second group of subjects explained both the occurrence and non-occurrence of the event. Explaining the event resulted in an unwarranted increase in subjects' likelihood estimations, while no increase was obtained among subjects in the group which had the dual explanation task. The increase in likelihood estimates was not associated with the predicted increased confidence in likelihood estimates.

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Summary

The focus of the present paper is the persistence of initial impressions. One area of research on initial impressions has investigated belief perseverance, the tendency of individuals to persist in a belief even after the data upon which they have formed the belief has been discredited. A number of studies have demonstrated belief perseverance in self-perception (Ross, Lepper & Hubbard, 1975), in social explanation and expectation (Ross, Lepper, Stracker & Steinmetz, 1977), in theory generation (Anderson, Lepper & Ross, 1980), and in beliefs about others (Carretta & Moreland, 1982).

The inferred process by which belief perseverance occurs is two-fold, including a process of distortion and a mechanism of autonomy (Ross, 1977). Once an initial impression is formed the naive observer sets about the task of evaluating the evidence in support of the impression, often in a distorted manner. It is posited that by the time the data upon which the initial belief was based has been discredited (for example, by means of a debriefing procedure), the evidence has already become autonomous from its associated outcome. Consequently, via the causal attribution process, the evidence continues to imply the occurrence of the outcome and the now decreased likelihood of the outcome fails to be appreciated by the individual (Ross et al., 1977). Ross et al. (1977) noted that a consequence of the process of explanation involved in prediction tasks may be greater certainty

about, or confidence in the predictions than may be reasonable in light of the evidence. None of the studies which examined the belief perseverance effect have directly measured the confidence with which predictions are made or with which attitudes are held.

Another component of the belief perseverance phenomenon to be addressed is the suggestion by Anderson et al. (1980), that leading subjects to consider alternative causal schemas might attenuate the perseverance effect. It was pointed out that at no time in their study were subjects led by debriefing to generate a counterexplanation to account for an alternative belief. This is also true of the earlier studies in the area. Consequently, it would be efficacious to attempt to attenuate the perseverance effect through similar manipulations.

The present study was designed to partially replicate and to extend the Ross et al. (1977) study of belief perseverance in which subjects were told they were to act as clinical psychologists attempting to understand and predict a patients' behavior on the basis of background information. Subjects in experimental groups were to use case history information to explain a critical event in the person's later life while control subjects were not required to explain the event. Subjects were told either that the event was hypothetical, or that the event actually occurred in the person's later life. After debriefing in which subjects were informed that no information about the person's later life was known, subjects assessed the likelihood of a variety of possible later life events, including the critical event they had previously explained. The results demonstrated that, regardless of the hypothetical or non-hypothetical nature of the task, having initially explained an event, subjects rated the event as more probable, i.e., persevered in the belief, than subjects who had either not explained an event, or had explained a different event.

In the present study one of the two case histories used by Ross et al. (1977) was selected and subjects were given hypothetical instructions in order to focus their attention on one selected outcome, the possible suicide of the case study patient. It was hypothesized that this group would demonstrate belief perseverance. An additional experimental group (two-explanation group) was added in which subjects were required to entertain the possibility that the target patient "might or might not have" committed suicide, thereby encouraging subjects to be less constrained to a specific outcome, while continuing to focus them on the same general theme. This group was asked to complete two, rather than only one, explanation tasks; they were required to explain the possible reasons for the hypothetical suicide and non-suicide of the patient. It was anticipated that two competing causal schemas would be generated, resulting in an attenuation of the perseverance effect.

To begin to clarify the role of confidence in the perseverance effect, confidence ratings of each likelihood prediction were obtained and it was hypothesized that the one-explanation group would make significantly higher confidence ratings than the control groups.

Method

Subjects

Subjects were 95 undergraduate student volunteers enrolled in introductory psychology or social psychology courses at two New England colleges. Some of these students obtained credit for participation in the study. Groups differing by types of course, school or credit versus no credit earned were found to be equivalent on the dependent measures. Random assignment to groups was employed within the constraints of class and school limitations. One group, the control subjects (with explanation) was comprised wholly of students from one of the colleges. Given the lack of significant differences among the previously mentioned parameters, this was not thought to be a major limitation.

Procedure

Subjects were told that the study involved clinical judgments to be made on the basis of authentic case history material. One case history, approximately 3,000 words in length was used (Goldstein & Palmer, 1975). The remainder of instructions were provided in written form in a package of materials.

Control Groups. Two control groups were included. In the first (without explanation), 19 subjects were advised that no knowledge of the patient's behavior subsequent to the case study was available. They were asked to imagine that, in the role of a clinical psychologist, they may learn of a later event in the patient's life. With this in mind they were to read the case history with attention to the patient's background, formative experiences and symptomatic problems, which might help to predict an event in the patient's later life. The second control group (with explanation) included 20 subjects who were given the same instructions as the first group except that they were also told they would be asked to list information which might help to explain or anticipate a later event in the patient's life. After reading the case study they were asked to list such information and to summarize the most significant information which might help to explain or anticipate a later life event, without further reference to the case or to their notes.

One-Explanation Condition. The 20 subjects in this explanation group received instructions identical to those of the first control group (without explanation). They were specifically asked, however, to imagine that they learned of the patient's suicide. They were also told that they would be asked to explain or to anticipate the patient's suicide. They then read the case study, listed the appropriate information and summarized the main reason for the patient's suicide.

Two-Explanation Condition. Thirty-eight subjects were equally divided into two groups with the order of the explanation task varied. The procedure was identical to that of the one-explanation condition with two exceptions. First, in all instances of introductory statements regarding suicide, the phrasing was altered to include both why the patient might or might not have committed suicide. Second, after completing the summary, subjects went on to complete a second explanation task and summary. Thus, each subject explained both why the patient might or might not have committed suicide.

All subjects were then informed again that although the case was authentic, no information was available about the patient's later life, and were asked to rate the likelihood of five events (committed suicide, participated in a dangerous medical experiment, became an alcoholic, contributed money to the Peace Corps, did volunteer work on a political campaign) subsequently occurring in the patient's life on a nine point Likert-type scale ranging from -4 (much less likely) to +4 (much more likely) with a midpoint labeled "about as likely as the average American female." Confidence in predictions was then rated on a nine point scale ranging from -4 (extremely uncertain about prediction) to +4 (extremely certain about prediction) with a midpoint labeled "neither certain nor uncertain."

Results

Since no order effects were detected when comparing the means on the estimated likelihood of suicide, $t(35)=0.157$, $p>.05$, the two orders were combined in subsequent analyses.

An ANOVA performed upon the likelihood estimates of suicide by group resulted in no significant difference, $F(3,91)=1.915$, $p>.05$. Since several a priori hypotheses were apparent based upon the literature, and given the fact that two of these did not predict significant differences potentially lowering the mean

sum of squares for treatment, the planned comparisons were tested (cf. Howell, 1982, p.279). See Table 1 for a summary of the means of subjects' likelihood estimates for suicide. The first hypothesis regarding belief perseverance was supported in that subjects in the one-explanation group predicted suicide to be significantly more likely than subjects in the control group with explanation, $t(91)=2.011$, $p<.05$. Second, the comparison between the two-explanation group and the control group with explanation resulted in the expected absence of a significant difference, $t(91)=0.767$, $p>.05$, suggesting the attenuation of the perseverance effect. The third hypothesis predicting a significant difference between the one- and two-explanation groups was not supported, $t(91)=1.542$, $p>.05$. Thus, the additional support for an attenuation was not obtained. The two control groups were also compared and did not differ, $t(91)=0.106$, $p>.05$.

To examine confidence ratings an ANOVA was performed upon the confidence ratings for subjects' suicide predictions and was not significant $F(3,91)=0.058$, $p>.05$, nor was the *a priori* comparison between the one-explanation and control with explanation group significant, $t(91)=0.038$, $p>.05$.

Discussion

The results of the present experiment provide clear support for the hypothesis that having explained an event, subjects' subjective likelihood of that event actually occurring increases. These subjects appear to persevere in the belief that the causal schemas they have developed in explaining a possible outcome are representative of a more probable outcome, an inferential leap previously suggested by Ross et al. (1977). The hypothesized relationship between confidence and belief perseverance was not obtained.

The two-explanation group demonstrated an attenuation of the perseverance effect to the extent that these subjects did not differ significantly from the

control subjects. Unfortunately, the results were not as clear-cut as anticipated in that, although in the predicted direction, subjects' likelihood estimates were not significantly lower than subjects in the one-explanation group. Nevertheless, the results suggest that explaining both sides of the possible suicide of the patient somewhat reduced likelihood ratings. It is likely that subjects either constructed two equally plausible causal schemas or simply recognized the ambiguities in the data, when faced with a second and contradictory explanation task.

In conclusion, it appears that belief perseverance as it relates to the generation of explanatory causal-schemas, is alive and well among undergraduate students. The question of the extent to which confidence is associated with the explanation process appears to be worthy of further inquiry.

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Table 1

Effects of Group Explanation Task

on Estimated Likelihood of Suicide

Experimental Group	Mean Estimated Likelihood of Suicide	S.D.	N
One explanation	2.25	0.91	20
Two explanation	1.59	1.64	37
Control with explanation	1.26	1.88	19
Control without explanation	1.21	1.44	19